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UNITED STATES DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE Region 8 Albuquerque, New Mexico

INCREASED FORAGE ...

THE KEY TO WISE WARTIME

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INCREASED FORAGE -- THE KEY TO WISE WARTIME LIVESTOCK PRODUCTION

THE LIVESTOCK INDUSTRY NOW FACES AN INCREASING DEMAND FOR MOST PRODUCTS, WITH RESULTING
GOOD PRICES. STOCKMEN WANT TO PRODUCE AN INCREASED AMOUNT OF MEAT, NOT ONLY FOR THE PROFIT INVOLVED BUT ALSO AS A PATRIOTIC DUTY.

TO THE LAYMAN, INCREASING THE MEAT SUPPLY SIMPLY MEANS INCREASING THE NUMBERS OF LIVESTOCK THAT GRAZE THE RANGE. SUCH, HOWEVER, IS SELDOM THE CASE. SECRETARY OF AGRICULTURE CLAUDE R. WICKARD STRUCK THE TRUTH OF THE MATTER WHEN HE SAID: "WE COULD TALK ALL WE WANTED TO ABOUT THE NECESSITY OF INCREASING LIVESTOCK PRODUCTION, BUT WE COULDN'T GET THE INCREASES IF WE DIDN'T HAVE THE FEED. OUR FEED SUPPLY ENABLES US TO PLAN OUR INCREASED PRODUCTION IN AN ORDERLY WAY AND TOPRODUCE MORE WITHOUT THE SOIL WASTE THAT ACCOMPANIED OUR FIRST WORLD WAR FOOD EFFORTS."

IT IS PARTICULARLY IMPORTANT HERE IN THE SOUTHWEST, THAT SECRETARY WICKARD'S STATEMENT BE ENLARGED UPON AND THE IMPORTANCE OF FEED EMPHASIZED SO THAT RANCHERS AND AGRICULTURAL AGENCIES WILL HAVE A CLEAR UNDERSTANDING OF THE SITUATION AND WILL NOT OVERLOOK THE SIGNIFICANCE OF FEED IN ANY CONTEMPLATED PROGRAM FOR INCREASING MEAT PRODUCTION.

FORAGE FLUCTUATION

IT IS DIFFICULT TO EST MATE THE AMOUNT OF FORAGE WHICH WILL BE PRODUCED FROM YEAR TO YEAR ON VESTERN RANGES SINCE CLIMATIC FACTORS INFLUENCE FEED PRODUCTION AND THERE ARE GREAT FLUCTUATIONS IN VOLUME OF FEED PRODUCED. IN ORDER TO GET BEST PRODUCTION RESULTS NUMBERS OF LIVESTOCK USING THIS FEED SHOULD FLUCTUATE WITH THE AMOUNT OF FEED SO THAT THE TWO WILL FIT TOGETHER.

RANCHING ENTERPRISES CAN OFTEN INCREASE MEAT PRODUCTION BY ADJUSTING THE NUMBERS SO THAT FEWER CATTLE GET MORE TO EAT AND PRODUCE MORE GAIN PER POUND OF FEED. MANY RANCHES HAVE CATTLE OF GOOD BREEDING WHICH SHOULD MATURE AT A WEIGHT OF ABOUT 1000 POUNDS OR MORE. QUITE OFTEN, HOW-EVER, BECAUSE OF LIMITED RANGE FORAGE, THEIR WEIGHTS FALL FAR BELOW THIS, WITH MATURE COWS WEIGHING 800 POUNDS OR LESS. THE SIMPLEST WAY TO MAKE THIS POINT CLEAR IS TO CITE AN EXAMPLE:

A 600-POUND STEER CAN BE FED JUST ENOUGH SO THAT AT THE END OF SIX MONTHS HE STILL WEIGHS 600 POUNDS. IN THIS CASE THE FEEDER HAS NOT PRODUCED A SINGLE POUND OF GAIN AND IN ADDITION IS OUT HIS FEED AND LABOR. ALL THE FEED HAS GONE INTO MAINTENANCE AND NONE INTO PRODUCTION. THE SAME CAN, OF COURSE, BE TRUE ON RANGE PASTURE WHEN THERE IS IN-SUFFICIENT FORAGE.

SOIL CONSERVATION NECESSARY

SINCE FEED IS SO IMPORTANT AND IS A LIMIT-ING FACTOR IN THE PRODUCTION OF LIVESTOCK AND LIVESTOCK PRODUCTS, WE SHOULD TRY TO INCREASE THE QUANTITY AND QUALITY OF THE FORAGE ON OUR WESTERN RANGES. TO DO THIS, WE MUST CONSERVE THE SOIL AND MOISTURE ON THESE LANDS. WE CANNOT HOPE TO PRODUCE LARGE CROPS OF FORAGE FOR LONG PERIODS OF TIME IF PLANT FOODS, SUCH AS NITROGEN AND PHOSPHORUS, NECESSARY FOR PLANT GROWTH, ARE WASHED AWAY AND WASTED. THEN, TOO, THE VERY MOISTURE THAT WASHES AWAY THESE PLANT NUTRIENTS IS SORELY NEEDED TO PRODUCE FORAGE CROPS ON RANGE LANDS WHERE THE RAIN FALLS.

FLOOD RUNOFF FROM INTENSE SUMMER STORMS ACCOUNTS FOR MOST OF THE EROSION DAMAGE SUSTAINED BY RANGE LANDS. IN MANY WATERSHEDS A LARGE PERCENTAGE OF SUCH FLASH RUNOFF IS LOST BY EVAPORATION FROM STREAM CHANNELS AND NEITHER GETS TO STORAGE RESERVOIRS NOR IS UTILIZED BENEFICIALLY BY RANGE VEGETATION. IF BY CONSERVATIVE GRAZING USE AND BY THE APPLICATION OF OTHER SOIL AND MOISTURE CONSERVATION MEASURES THE ABSORPTIVE CAPACITY OF THE SOIL IS MAINTAINED, THIS WATER WILL BE UTILIZED BY RANGE PLANTS AND FORAGE PRODUCTION INCREASED.

WE CANNOT HOPE TO UTILIZE THE LAST BLADE OF GRASS ON RANGE LANDS AND STILL RETAIN SOIL AND MOISTURE. PLANTS MANUFACTURE THEIR FOOD IN THE LEAVES AND NEED A CERTAIN AMOUNT OF TOP GROWTH LEFT UNGRAZED FOR THIS IMPORTANT FUNCTION. PLANTS NEED FOOD TO SEND OUT VIGOROUS ROOT SYSTEMS, TOP GROWTH, AND PERFORM THEIR MANY GROWTH FUNCTIONS MUCH AS A STEER MUST USE PART OF THE ENERGY DERIVED FROM ITS FEED IN REPLACING WORN-OUT TISSUE, IN DIGESTING THAT FEED, AND IN OTHER BODY FUNCTIONS BEFORE IT CAN GAIN IN WEIGHT AND PRODUCE MORE MEAT. IF NATIVE RANGE PLANTS ARE GRAZED TOO CLOSELY, THE FORAGE YIELDS ARE LOWERED.

RECOMMENDATIONS

IT IS IMPORTANT TO KEEP IN MIND THAT IN
THE SOUTHWEST THE LAND AREA IS ALREADY LARGELY
DEVOTED TO THE PRODUCTION OF LIVESTOCK AND LIVE—
STOCK PRODUCTS. IN ORDER THAT FUTURE MOVES TO
INCREASE THESE PRODUCTS BE SOUND, THE FOLLOWING
RECOMMENDATIONS ARE BELIEVED TO BE IN ORDER AT
THIS TIME:

- I. EFFORTS TO INCREASE LIVESTOCK PRODUCTS SHOULD RECOGNIZE THAT OUR WESTERN LAND AREA IS ALREADY LARGELY DEVOTED TO THE RAISING OF LIVESTOCK.
- 2. ANY PROGRAM THUS INITIATED SHOULD BE DEVELOPED WITH EMPHASIS ON INCREASING FEED RATHER THAN NUMBERS OF LIVESTOCK. WE CAN INCREASE LIVESTOCK PRODUCTION BUT, IN MANY INSTANCES, THIS MAY MEAN ACTUAL REDUCTION OF LIVESTOCK NUMBERS NOW USING TYPICAL RANGE LANDS. IN OTHER WORDS, MORE FEED SHOULD GO INTO PRODUCTION AND A LESSER PROPORTION INTO MERE MAINTENANCE. LIVE—STOCK SHOULD BE ADJUSTED TO THE FORAGE PRODUCED.
- 3. THE PRODUCTION OF LIVESTOCK AND LIVE—
 STOCK PRODUCTS CAN BE INCREASED ON LANDS
 ALREADY DEVOTED TO THIS USE BY:
 - A. ADJUSTING LIVESTOCK NUMBERS TO THE FORAGE PRODUCED, TAKING INTO ACCOUNT ANNUAL FORAGE FLUCTUATIONS DUE TO CLIMATE AND THE DEGREE OF USE WHICH THE FORAGE CAN STAND WHILE RETAINING ITS FULL VIGOR.

- B. TAKING INTO ACCOUNT THE BEST TIME FOR THE FORAGE TO BE USED.
- C. USING SUPPLEMENTS WHERE THEY ARE ECONOMICAL, TO OVERCOME PROTEIN, MIN-ERAL, OR OTHER DEFICIENCIES.
- D. USING THE DEST KNOWN LIVESTOCK MAN-AGEMENT PRACTICES COORDINATED WITH THE BEST RANGE MANAGEMENT PRACTICES.
- E. REHABILITATION OF DETERIORATED RANGES. THIS MAY BE ACCOMPLISHED THROUGH ARTIFICIAL SEEDING OF THE BETTER AREAS TO ADAPTED GRASS SPECIES OR THROUGH NATURAL RESEEDING MADE POSSIBLE BY DEFERRED OR ROTATIONAL GRAZING.
- 4. ON FARM LANDS, FEED PRODUCTION IS MORE UNDER MAN'S CONTROL. WITH THE PRODUCTION OF MORE FEED, THERE CAN OFTEN BE AN ACTUAL INCREASE IN LIVESTOCK NUMBERS AS WELL AS INCREASED PRODUCTION FROM ANIMALS NOW ON THE FARM. MANY DESIRABLE CHANGES CAN BE MADE TOWARD THE GOAL OF INCREASING LIVESTOCK AND LIVESTOCK PRODUCTS ON THE FARM OR FARM-RANGE ENTERPRISE. THESE CAN INCLUDE:
 - A. RESEEDING OF ABANDONED FARM LAND TO NATIVE AND ADAPTED EXOTIC GRASSES.
 - B. RETIREMENT OF STEEPLY SLOPING LANDS AND THOSE WITH SHALLOW SOILS, EITHER DRY OR IRRIGATED, TO ADAPTED PASTURE MIXTURES.

- C. PROVIDING FOR AN ACREAGE OF PAS-TURE &R FEED CROPS IN CROP ROTATIONS, EVEN ON GOOD SOIL.
- 5. CERTAIN LIVESTOCK OR LIVESTOCK PRODUCTS CAN BE INCREASED AT THE EXPENSE OF OTHERS. FOR EXAMPLE, IT IS POSSIBLE TO INCREASE SHEEP PRODUCTION AT THE EXPENSE OF CATTLE (OR VICE-VERSA), OR MILK PRODUCTION AT THE EXPENSE OF MEAT, WHICHEVER MAY SEEM MORE DESIRABLE.

IF CONTEMPLATED LIVESTOCK PROGRAMS AND POLICIES ARE BASED ON SOMETHING LIKE THE PRECEDING OUTLINE, THE LIVESTOCK INDUSTRY HAS BEFORE IT THE OPPORTUNITY AND MEANS OF SIMULTANEOUSLY SERVING TWO GREAT CAUSES: THE IMMEDIATE NEEDS OF WAR AND THE LONG-TIME OBJECTIVE OF CONSERVING AND PERPETUATING THE RANGE RESOURCES OF SOIL, WATER, AND GRASS WHICH MAKE POSSIBLE THE INDUSTRY ITSELF.

